

## Abstract

The present invention provides systems and methods for the evaluation of the urethra and periurethral tissues using an MRI coil adapted for insertion into the male, female or pediatric urethra. The MRI coil may be in electrical communication with an interface circuit made up of a tuning-matching circuit, a decoupling circuit and a balun circuit. The interface circuit may also be in electrical communication with a MRI machine. In certain practices, the present invention provides methods for the diagnosis and treatment of conditions involving the urethra and periurethral tissues, including disorders of the female pelvic floor, conditions of the prostate and anomalies of the pediatric pelvis.